

## **NASA Musculoskeletal Space Medicine and Reconditioning Program**

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The Astronaut Strength, Conditioning, and Rehabilitation (ASCR) group is comprised of certified strength and conditioning coaches and licensed and certified athletic trainers. The ASCR group works within NASA's Space Medicine Division providing direction and supervision to the astronaut corp with regards to physical readiness throughout all phases of space flight. The ASCR group is overseen by flight surgeons with specialized training in sports medicine or physical medicine and rehabilitation.

The goals of the ASCR group include 1) designing and administering strength and conditioning programs that maximize the potential for physical performance while minimizing the rate of injury, 2) providing appropriate injury management and rehabilitation services, 3) collaborating with medical, research, engineering, and mission operations groups to develop and implement safe and effective in-flight exercise countermeasures, and 4) providing a structured, individualized post-flight reconditioning program for long duration crew members.

This Panel will present the current approach to the management of musculoskeletal injuries commonly seen within the astronaut corp and will present an overview of the pre-flight physical training, in-flight exercise countermeasures, and post-flight reconditioning program for ISS astronauts.